Idaho Disease BULLETIN

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Pandemic Planning for Medical Offices and Ambulatory Clinics

Planning for pandemic influenza is critical for ensuring a coordinated healthcare response. The U.S. Department of Health and Human Services (HHS) and Centers for Disease Control (CDC) have developed a preparedness checklist for medical offices and ambulatory clinics available at http://www.pandemicflu.gov/plan/medical/html This tool will help healthcare providers identify the strengths and weaknesses of current pandemic influenza planning efforts. Individual medical offices and clinics may need to adapt this checklist to meet their unique needs. Local and state influenza planning information is necessary to complete the plan for medical offices and ambulatory clinics. Idaho's public health pandemic influenza response plan is available from a link located on the right side of http://www.healthandwelfare.idaho.gov/site/3657/default.aspx. It supports the overall Idaho Department of Health and Welfare Public Health Preparedness and Response Plan and will be carried out in collaboration with District Health Departments, the Idaho Bureau of Homeland Security, and other local, state, and federal agencies and organizations. All public and private sectors in Idaho are encouraged to develop their own influenza pandemic response plans that coordinate with the state and local efforts.

Idaho and U.S. Pertussis Rates On the Rise; New Vaccines Available for Adolescents and Adults

The incidence of reported pertussis infections in the U.S. has steadily risen since the 1980s. In 2004, the Centers for Disease Control and Prevention (CDC) reported the highest number of cases of pertussis since 1959, with an incidence of 8.5 cases/100,000 persons nationwide. In 2005* Idaho reported approximately 15.5 cases/100,000 persons †, a provisional 2005 rate approximately twice the national rate of 2004 (see Figure 1).

Although infants have the highest reported incidence of pertussis of any age group nationwide, according to CDC, adolescents and adults account for the majority of reported cases. This is thought to be due to waning immunity from childhood pertussis vaccination, leaving adolescents and adults susceptible. Increased awareness about pertussis in older age groups among providers may also account for an increase in reports in those age groups. According to CDC, in 2004 adolescents 11–18 years of age made up 35% and adults 19–64 years of age accounted for 27% of pertussis reports. In 2005, in Idaho, 22% of reported pertussis cases were in adolescents 11–18 years of age, while 32.8% of cases were in adults 19–64 years of age.

Adults and adolescents with pertussis can transmit this illness to others, including infants, who are at highest risk for serious complications and death. Therefore, providing some protection to the adolescent and adult population may not only reduce disease in those age groups but also reduce the risk to very young infants.

*Provisional 2005 year-end data.
† U.S. Census Bureau 2005 estimated Idaho state population: 1.43 million

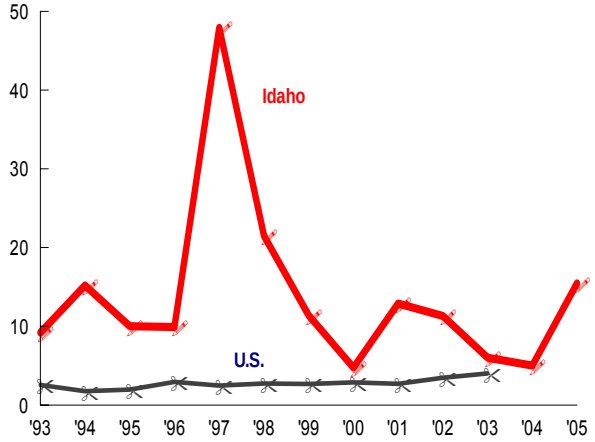
More Inside:

New Vaccines

In the spring of 2005, two new adsorbed vaccines (Tdap) (Tetanus toxoid, reduced diphtheria toxoid and acellular pertussis), formulated for adolescents and adults, were licensed by the FDA. BOOSTRIX® (GlaxoSmithKline Biologicals, Rixensart, Belgium) was licensed for those 10-18 years of age, and ADACEL™ (sanofi pasteur, Toronto, Ontario, Canada) was licensed for those 11–64 years of age. In the past, pertussis vaccine was available only for those aged six years and younger.

Fig. 1

Rate of pertussis per 100,000: Idaho and U.S.,1993–2005*



*2005 data are provisional.

New Vaccine Recommendations Available

A full description of provisional and final Advisory Committee on Immunization Practices (ACIP) recommendations for adolescent and adult pertussis vaccination (including precautions, contraindications, and other special vaccine considerations) may be found at:
http://www.cdc.gov/nip/recs/provisional recs/default.htm.

Highlights are listed below:

- **Adolescent Recommendations**
  In June 2005, the ACIP voted to recommend a single dose of Tdap for adolescents aged 11–18 years. Not only are adolescents a potential source of pertussis for infants, outbreaks in schools are disruptive and can lead to significant public health control efforts. Final recommendations for adolescent vaccine can be found at:

  http://www.cdc.gov/mmwr/preview/mmwrhtml/rr55e223a1.htm.

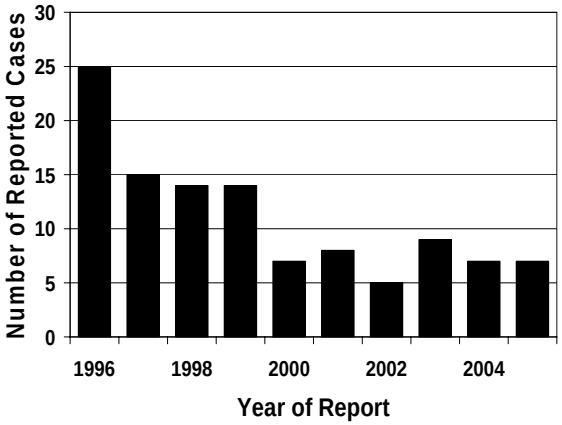
- **Adult Recommendations**
  In October 2005, ACIP recommended the routine use of a single dose of Tdap to replace the next Td booster for adults aged 19–64 years, if the previous Td vaccine was received ≥10 years earlier. Shorter intervals are possible according to the extended ACIP recommendations. Because adults may pass pertussis to infants, ACIP also recommended that Tdap be used by adults with close contact with infants <12 months of age (e.g. parents, child care providers, and health care providers). Ideally, Tdap should be given at least one month before beginning close contact with infants. Women should receive a dose of Tdap in the immediate post-partum period if they have not previously received Tdap. Any woman who might become pregnant is encouraged to receive a single dose of Tdap according to ACIP recommendations.

Additional recommendations for use of Tdap in health care providers, pregnant women, and those >65 years will be considered during future ACIP meetings.

Menactra®

Various serogroups of *Neisseria meningitidis* (A, B, C, Y, and W-135) are known to cause invasive disease including meningitis, septicemia, and pneumonia. Most infections in the U.S are caused by serogroups B, C, and Y. Every year approximately 2,500 cases of invasive meningococcal disease are reported in the U.S. with a case-fatality rate of 10%. According to CDC 11–19% of survivors have permanent sequelae including seizures, loss of limbs, kidney disease, deafness or mental retardation.

Meningoccal Disease, Invasive
Idaho, 1966-2005



Although there is a downward trend in invasive meningococcal disease in Idaho (see graph), many infections occur in younger persons. In 2005, 71% of reported infections were in those less than 20 years of age.

Immunization is the most effective preventive measure to reduce the incidence of death and sequelae caused by meningococcal infections, with the exception of serogroup B infections which are not covered by the vaccine. On January 17, 2005, licensure for Menactra®, a meningococcal (Groups A, C, Y and W-135) polysaccharide diphtheria toxoid conjugate vaccine produced by sanofi pasteur, was approved for use in those 11–55 years of age.

Non-conjugate *N. meningitides* vaccines used prior to Menactra® do not stimulate a T-cell response, are poorly immunogenic in children < 2 years and do not lead to a memory or anamnestic response after subsequent challenge. These drawbacks of available meningococcal vaccines have now been overcome.

Conjugation of proteins with the vaccine antigen changes its antigenic properties such that it will elicit a T-cell response, leading to a strong primary response, a significant anamnestic response, and better protection in children.

The new vaccine provides the following:

- Immune response in infants (FDA licensure pending)
- Long-term immune memory
- Booster effect
- Reduced incidence of nasopharyngeal carriage in population
- Herd immunity

CDC's ACIP recommended Menactra® for the following groups:

- Adolescents entering middle school (11–12 year olds) or high school (15 years old)
- Children and adults without a spleen
- Children and adults who lack serum complement proteins
- College freshmen living in dormitories
- People exposed to someone infected with meningococcus during an outbreak of the type A, C, Y, or W-135
- Children and adults who will travel to sub-Saharan Africa between December and June.

The 2006 Idaho Legislature recently approved funding for the addition of tetanus toxoid, diphtheria toxoid and acellular pertussis vaccine (Tdap) and the new meningococcal conjugate quadri-valent adolescent vaccine Menactra® to Idaho's Vaccines for Children Program. These vaccines are expected to be available for ordering in limited quantities from the Idaho Immunization Program beginning in late April. The Program will offer these vaccines for adolescents through 18 years of age as recommended by ACIP. For questions regarding these or any other vaccines, please contact the Idaho Immunization Program at 208-334-5931.

What About Guillain-Barré Syndrome (GBS) and Menactra®?

On September 30, 2005, FDA issued an alert about a potential link between Menactra® and GBS in five vaccine recipients. FDA also reported that, upon statistical review, the rate of GBS based on the number of cases

reported following administration of Menactra® was similar to what might have been expected to occur by coincidence, even without vaccination. FDA made the announcement because of the timing of GBS occurrence post-vaccination but made no changes in the use recommendations. CDC reiterated in the April 7, 2006 MMWR (55(13); 364-366) that the risk for serious meningococcal disease still exists, and a causal relationship could not be established between Menactra® and GBS, therefore they recommended the continuation of current vaccine strategies.

A CDC fact sheet for healthcare providers may be found at:

http://www.cdc.gov/nip/vacsafe/concerns/gbs/gbs-menactra-facts htm.

Suspected adverse vaccine events are to be reported to VAERS (www.vaers.hhs.gov or 1-800-822-7967).

Idaho Disease Bulletin
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